

In re: Baldwin et al.  
Serial No. 08/959,160  
Filed: 28 October 1997  
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## REMARKS

This is in response to the final official action of May 28, 2002.

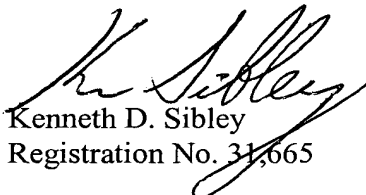
The claims have been amended to direct them to more conventional approaches to combination chemotherapy rather than antisense therapies. Specifically, the claims have been directed to proteasome inhibitors as the NF- $\kappa$ B inhibitors, support for which is found in the specification at page 11, lines 8-10 (and other locations). Further, the claims have been directed to anthracycline antibiotics as the antineoplastic chemotherapeutic agent, support for which is found in the specification at page 18, line 17. Claims 5 and 17-28, which were no longer encompassed by the claims from which they depended, have been cancelled. Claims 11-12 have been cancelled to simplify the issues. Claims 3 and 8 have been amended to make them consistent with the specification of anthracycline antibiotics in the independent claims. Support for the amendment to claims 3 and 8 is found in the specification at page 18, lines 17-18. Finally, the term "transiently", previously added to the claims, has been removed in the present amendment.

In the Official Action of May 28, 2002, claims 1-12 and 14-28 stand rejected as lacking enablement under the first paragraph of 35 USC 112. As noted above, the claims have been amended to direct them to combination chemotherapy and not antisense or genetic engineering techniques. Specifically, the NF- $\kappa$ B inhibitors have been specified to be proteasome inhibitors, an established class of compounds (*see, e.g.*, U.S. Patent No. 5,550,262 to Iqbal et al, submitted concurrently herewith), and the chemotherapeutic agents have been specified to be anthracycline antibiotics, an established class of chemotherapeutic agents. Accordingly, it is respectfully submitted that this rejection may now be withdrawn.

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The changes made to the claims herein are shown, with additions underlined and deletions bracketed, in the attached "Version with Markings to Show Changes Made".

Respectfully submitted,

  
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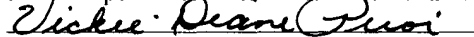


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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner For Patents, Washington, DC 20231, on October 28, 2002.

  
Vickie Diane Prior

Date of Signature: October 28, 2002

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

1. (thrice amended) A method of enhancing the cytotoxic effects of an antineoplastic chemotherapeutic agent, comprising [transiently] administering to a mammalian subject in need of such therapy a therapeutically effective amount of an NF- $\kappa$ B inhibitor in conjunction with the administration of the chemotherapeutic agent, whereby the cytotoxic effect of said chemotherapeutic agent is increased compared to that which would occur in the absence of said NF- $\kappa$ B inhibitor;

wherein said NF- $\kappa$ B inhibitor is a proteasome inhibitor;

and wherein said antineoplastic chemotherapeutic agent is an anthracycline antibiotic.

3 (amended). The method of claim 1 where said chemotherapeutic agent is selected from the group consisting of daunorubicin, [vincristine, and irinotecan.] doxorubicin, mitoxantraone, and bisanthrene.

6. (thrice amended) A method of enhancing chemotherapeutic cytotoxicity in a mammalian subject treated with an antineoplastic chemotherapeutic agent, comprising [transiently] administering to the mammalian subject a therapeutically effective amount of an NF- $\kappa$ B inhibitor in conjunction with the administration of the chemotherapeutic agent, whereby the cytotoxic effect of said chemotherapeutic agent is increased compared to that which would occur in the absence of said NF- $\kappa$ B inhibitor;

wherein said NF- $\kappa$ B inhibitor is a proteasome inhibitor;

and wherein said chemotherapeutic agent is an anthracycline antibiotic.

8 (amended). A method according to claim 6 wherein said chemotherapeutic agent is selected from the group consisting of daunorubicin, [vincristine, and irinotecan.] doxorubicin, mitoxantraone, and bisanthrene.

14. (twice amended) A method of treating a tumor in a mammalian subject with a chemotherapeutic agent, the improvement comprising [transiently] administering an effective amount of an NF- $\kappa$ B inhibitor in conjunction with said chemotherapeutic agent, whereby the cytotoxic effect of said chemotherapeutic agent is increased compared to that which would occur in the absence of said NF- $\kappa$ B inhibitor;

wherein said NF- $\kappa$ B inhibitor is a proteasome inhibitor;

and wherein said chemotherapeutic agent is an anthracycline antibiotic.

15. (twice amended) A method of treating a mammalian subject receiving a chemotherapeutic agent for the treatment of a neoplastic growth, the improvement comprising [transiently] administering an effective amount of an NF- $\kappa$ B inhibitor to the subject in conjunction with said chemotherapeutic agent, wherein the effect is to increase the cytotoxic effects of said chemotherapeutic agent;

wherein said NF- $\kappa$ B inhibitor is a proteasome inhibitor;

and wherein said chemotherapeutic agent is an anthracycline antibiotic.

16. (twice amended) A method of increasing the cytotoxicity of a chemotherapeutic [drug] agent administered to a mammalian subject for the treatment of a neoplastic growth, comprising [transiently] administering an effective amount of an NF- $\kappa$ B inhibitor to said subject in conjunction with said chemotherapeutic [drug] agent, wherein the effect is to increase the cytotoxic effects of said chemotherapeutic [drug] agent;

wherein said NF- $\kappa$ B inhibitor is a proteasome inhibitor;

and wherein said chemotherapeutic agent is an anthracycline antibiotic.

29 (new). The method of claim 16, wherein said chemotherapeutic agent is doxorubicin.

30 (new). The method of claim 16, wherein said neoplastic growth is breast cancer.

31 (new). The method of claim 16, wherein said chemotherapeutic agent is doxorubicin and said neoplastic growth is breast cancer.